REMARKS/ARGUMENTS

After entry of this paper, claims 2-25, 30, and 32-35 are pending. Claims 26-29 and 31 are canceled, without prejudice, as being drawn to non-elected subject matter. Applicants reserve the right to prosecute the subject matter of the non-elected groups, including the subject matter of canceled claims 26-29 and 31, and the subject matter removed from the amended claims, in a divisional application filed during the pendency of the present application.

The claims were amended to remove non-elected subject matter, to correct the dependency of the claims in view of the canceled claims, and to correct clerical errors. No new matter is added by these amendments.

Restriction Requirement

(i) *The Examiner restricted the claims into the four (4) groups set forth on page 2 of the Action and required election of one of the groups.*

In response to the requirement to elect the claims of one of the cited groups, Applicants hereby elect, without prejudice, the claims of Group II, i.e., claims 25, 30, and 32-35 drawn to methods of inhibiting the expression of apolipoprotein(a), and to methods of treating an animal comprising the use of the antisense compounds targeted to apolipoprotein(a).

(ii) The Examiner further required that Applicants specify a particular compound sequence, preferably by SEQ ID NO. for the elected group.

In response to the requirement to elect one compound sequence, Applicants hereby provisionally elect the compound encompassed by SEQ ID NO: 23, with traverse.

Applicants' elected claims include methods of inhibiting expression of Apo(a) in a cell or tissue by treatment of same with compounds 8 to 80 nucleobases in length targeted to and at least 70% complementary to a nucleic acid molecule encoding Apo a), which compounds inhibit the expression of Apo (a) mRNA by at least 10%. Also encompassed in this elected group are methods of treating an animal by administering the same above-described compounds.

As demonstrated by the specification, there are clearly more than a single compound meeting this description that can be employed in these methods. See, e.g., Table 1 and the data in Example 17.

(a) ***Such a narrow restriction requirement effectively deprives Applicants of the right to obtain patent protection on a reasonable scope of the invention.***

The reasonableness of the amount of searching that must be done by the examiner on a single application should, in all fairness, be balanced by the "unreasonableness" of the burden placed upon the Applicants/inventors by any arbitrary limitation of the scope of that search: Applicants submit that the limitation of the method claims of this application to a single sequence by the present restriction requirement is unreasonable on its face.

In the present case, the logical conclusion of such a requirement would result in these Applicants filing at least 35 different applications to cover only the target sequences shown in Table 1, and all of that expense and effort for a single target gene, apolipoprotein(a). No Applicants/inventors is likely to be able to afford the effort and expense of filing such an onerous number of patent applications in order to cover the full scope of his invention. This is particularly true where the invention involves multiple species that can be encompassed by a single generic claim.

The logical result of the application of this type of restriction requirement is to ***discourage*** Applicants from filing patent applications on valuable inventions. Such discouragement is not, or at least should not be, the purpose or the practice of the United States Patent and Trademark Office.

(b) The Restriction Requirement of the Compounds Should More Properly Be a Species Election

As employed in the presently elected method claims, the compounds target and modulate the expression of Apo (a). The target regions illustrated in Table 1 are representative target regions of the Apo (a) gene that provide good targets of antisense inhibition of apolipoprotein(a).

Another common trait of these target sequences is that they mediate greater than 10% inhibition of the apolipoprotein(a) gene in a human cell that expresses apolipoprotein(a), when the cell is contacted by antisense sequences. Inhibition may be measured in a variety of suitable assays described in the specification for that purpose. For example, a qualitative RT-PCR assay was employed to provide the inhibition data presented in Table 1 of the specification.

Each target sequence of Table 1, while an independent and distinct sequence in its own right, is a ***SPECIES*** of the ***GENUS*** defined in amended method claims 25 and 30. That genus is composed of sequences of 8 to 80 consecutive nucleobases in length that when bound to a compound that specifically hybridizes to that sequence, mediates greater than 10% inhibition of the apolipoprotein(a) gene in a human cell, as measured in a suitable assay, e.g., a qualitative RT-PCR assay. Clearly, each such target sequence of Table 1 is a species of a well-defined and readily identified genus.

The procedure for handling applications that include generic claims is set forth in 37 CFR § 1.146. This rule provides that:

> "[I]n the first action on an application containing a generic claim to a generic invention (genus) and claims to more than one patentably distinct species embraced thereby, the examiner may require the applicant in the reply to that action to elect a species of his or her invention to which his or her claim will be restricted ***if no claim to the genus is found to be allowable.***" (emphasis added)

As stated in MPEP § 809.02(a):

> "...upon allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR § 1.141."

Where generic claims are present, an applicant ***may*** be required to elect a species for initial examination, but the generic claims are still subject to examination to determine whether such generic claims are allowable.

MPEP § 806.04(b) states that species may be related inventions. Specifically, this section of the MPEP directs that:

> "[w]here inventions as disclosed and claimed are both (A) species under a claimed genus and (B) related, then the question of restriction must be determined by both the practice applicable to election of species and the practice applicable to other types of restriction such as those covered in MPEP § 806.05-§806.05(i). If restriction is improper under either practice, it should not be required."

The species set forth in Table 1 (particular oligonucleotide sequences) fall within the genus of compounds useful in claims 25 and 30 (compounds targeted to a nucleic acid encoding apolipoprotein(a)). The species are also related; each species is a compound which both targets and inhibits the expression of apolipoprotein(a) and may even overlap. Therefore, as described above, "the question of restriction ***must*** be determined by both the practice applicable to election of species and the practice applicable to other types of restriction such as those covered in MPEP § 806.05-§806.05(i)". In the present case, restriction must be determined by the practice applicable to election of species. The practice applicable to the types of restriction such as those covered in MPEP § 806.05-806.05(i) is clearly not relevant to the present invention.

As MPEP § 806.04(b) states that species that are related inventions must be determined by both the practice applicable to election of species and the practice applicable to other types of restriction such as those covered in MPEP §806.05-806.05(i). The rules detailed by MPEP §806.05-806.05(i) are not relevant to the present invention.

As such, Applicants respectfully request that the examiner reconsider this restriction requirement to a specific sequence used in the claimed methods and convert it into a species restriction. In this way, the patentability of the generic claim may be preserved in the event that a search of the species does not prove fruitful. These claims clearly appear much more suited to a species election than a restriction.

The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees to our Deposit Account Number 08-3040.

Respectfully submitted,

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